

## HAS THERE BEEN A FAULT MOVEMENT IN RED BOY?

Is there a fault movement in the Red Boy mine? Prof. Waldemar Lindgren, of the United States geological survey, says there is. Tom Moffat says there is not, and is backed up by other competent mining men.

In Lindgren's report in 1900 to Hon. Charles D. Walcott, director of the United States geological survey, which is a bureau of the department of the interior, Prof. Lindgren says: "The two veins (Red Boy and Monarch) converges slightly and nearly meet at a main porphyry dike, dipping 60 degrees south, along which they have been sharply out off by a smooth fault. The veins have not yet been found beyond the dike, though from surface indications it is probable that the northern block has moved, relatively, 400 feet to the east."

Tom Moffat says that the Red Boy and Monarch veins come together at a point about midway between the crosscut tunnel and the south dike. The juncture is complete, although a line of demarcation between the two veins is plainly discernible for a considerable distance, even after they have common walls. This portion of the vein has been drifted on through the Blacksmith tunnel level to the dike, pay appearing the entire distance.

Mr. Moffat says that when the dyke cut the conjoined Red Boy-Monarch vein, work was suspended for some time, it being a belief of the management then that a fault movement had occurred. It was considered hardly worth while to determine the matter by further work in that direction, as the end line of the Red Boy group lies only a short distance south of the dike.

However, when Edmund Juessen was consulting engineer for the Red Boy mine, he evolved a theory that while a fault movement to the east had apparently occurred, Lindgren's projection of 400 feet was in error, and that the movement could not be greater than 100 feet. With this idea he directed exploitation work along the dike. However, instead of crossing to the southern, or foot wall, of the dike, he caused the north wall to be followed to the east, with occasional excursions into the heart of the dike in search of broken vein matter. Failing to find which, he boldly struck across the dike at a point 100 feet east of the lost vein, passed through the fault plane and entered the country rock beyond. After driving a short distance through black argillite, he picked up what is known as the Congo vein beyond, or to the south of the dike. He drifted back on this vein to the dike, passed through the porphyry, and found himself still in ore. No fault movement had occurred in the Congo vein, although it is a matter of interest to note that the Congo drift in passing through the dike, encountered no crushed vein matter. This work, it should be remembered, was done subsequent to Prof. Lindgren's examination in 1900, so that in the compilation of his report he lacked the later-acquired Congo data in preparing his fault movement hypothesis. When Mr. Juessen severed his connection with the mine, he was

still in the dark as to whether the so-called Congo vein, south of the dike, was in reality the Congo vein, or the faulted eastern projection of the original Red Boy-Monarch.

Oddly enough the dike has never been crossed at the point where the Red Boy-Monarch was faulted, which, of course, would have readily determined the southern projection of that lode.

It is a matter of definite knowledge that a fault movement has occurred along the Monarch vein, 600 feet north of its junction with the Red Boy, where a ten foot porphyry dike cuts across that ledge, faulting it through all levels, the throw being ten feet to the east. Still another dike cuts across the Red Boy, producing a sharp twist in a similar direction.

The fact that the 10-foot dike which faults the Monarch, does not correspond with the dike which twists the Red Boy, gave Prof. Lindgren basis for a belief that the veins are really later than the dike; that the fissures in crossing them were, as often happens, split up into stringers; and that a subsequent movement has occurred along the walls of many of the dikes, so that the veins now appear dislocated by them, while as a matter of fact there is equal reason to believe that the exact reverse is true.

The entire Red Boy group abounds in porphyry dikes. Several of them are seen in the Blacksmith crosscut, one being 60 feet wide. The main shaft, started by the old Godfrey and Tabor management, being equipped with a \$100,000 hoisting plant, was sunk on a wide dike, which fact resulted in the encountering of a tremendous flow of water, which is popularly supposed to have caused an abandonment of that working. A crosscut from the first station in this shaft was run to an intersection with the Red Boy-Monarch vein, which it tapped at a point a trifle south of, and 192 feet deeper than, the juncture of those two veins on the drift from the Blacksmith level. It is said that no pay appeared, although the double vein above the Blacksmith level has been stoped to the surface, yielding handsomely.

It will perhaps never be known whether there is a fault movement along the big south dike, unless some curious superintendent, merely to satisfy himself, drives straight across it at the point where Mr. Juessen turned and drove south along the hanging wall at the dike. No other purpose could be subserved by such exploitation, except the satisfaction of curiosity, as, above stated, the boundaries of Red Boy ground lie only a short distance south of the dike.

Tom Moffat contends that the Congo vein, which was picked up by Mr. Juessen south of the dike, and drifted upon north to a re-crossing of the dike, is in reality an independent and continuous vein, having no relation to the faulted Red Boy-Monarch confluent vein. Arguing from this hypothesis, and premising his conclusion upon the fact that no fault movement occurred in the Congo lode, he maintains that the same must be true of the Red Boy-Monarch. He points fur-

## BILLY REEVES CHOSEN SUPER AT THE RED BOY

W. H. (Billy) Reeves has been chosen superintendent at the Red Boy mine, under a Acting Manager John Thomsen. Tomorrow a force of eight men will start work on the development plans outlined in Mondays' Miner. In brief, these plans involve the driving of 600 feet of crosscut tunnel, from the Blaine ledge to the Concord vein, on Hilltop territory. A vertical depth of 750 feet will be attained on an ore shoot which is shown by a 36-foot surface cropping. It is not known whether the big air compressor plant will be started and machine drills used in the crosscut. The work will require the remainder of the winter to complete, and it is not probable that the mill will be started until ore reserves are opened by the crosscut. The management has

made no announcement as to its plans for sinking the big shaft, which is equipped with the finest hoisting plant in the northwest, costing close to \$100,000.

When Superintendent Reeves reaches the mine tomorrow, Acting General Manager Thomsen will depart immediately for Chicago, to confer with Alexander Prussing, the gentleman through whose instrumentality a satisfactory reorganization of the old Red Boy company was effected. Manager Thomsen, who acted as receiver during the financial renaissance of the defunct merger corporation, will submit his report of Mr. Prussing and will undoubtedly be given free hand to carry out his plans for development upon a large scale.

ther to the fact that the 10-foot fault movement of the Monarch vein, 600 feet north, precludes the possibility of a very much larger movement elsewhere, and cites as corroboration of this theory the fact that the faulting of the Red Boy vein by a similar dike, was not a fault, but a mere twist.

The only way to determine this matter is to do like Billy Reynolds, at the Flagstaff, who, while having no interest in the property, having been discharged as superintendent by the its Parisian owners, still believed that he was right when he said that a crosscut from the main Flagstaff vein, to the north would enter a ledge of pay ore, and who, when the mine shut down, put up his own money to drive the crosscut—and proved himself correct.

### PRAIRIE DIGGINGS TO RESUME NEXT SPRING

Joe Waddell, general manager of the Prairie Diggings mine, near Prairie City, in Grant county, came up from Baker City this morning, on business connected with the Sumpter smelter. He returned to the county seat this afternoon. Manager Waddell returned last week from a conference with the head officers of the Hoosier Boy Gold Mining company, operating the Prairie Diggings, whose headquarters are in Ann Arbor, Mich. The visit lasted four weeks and resulted in the perfection of plans for a resumption of mining and milling operations at the Prairie Diggings just as soon as the spring thaw will permit. An accumulation of concentrates at the Prairie Diggings was recently shipped to the Sumpter smelter, giving flattering returns, notwithstanding the long wagon-haul and consequent high cost of transportation. Joseph Waddell was formerly general manager and active superintendent of the Cyclone mine, east of Baker, and enjoys the reputation of being one of the best practical mine managers in the camp.

### Gold in the Treasury.

Dunn's Review states that in the vaults of the United States treasury alone there are over \$722,000,000 in gold coin or bullion, far

eclipsing all high records of this or any other national treasury. This heavy accumulation is the more remarkable when it is remembered that the Panama Canal company was paid \$40,000,000 last spring, which contributed largely to the exports of \$83,039,908 in the first nine months of this year. As an offset there were imports of \$68,694,670 gold during the same period, leaving a net loss of only \$14,452,228, or only \$5,000,000 less than the net exports of silver. The whole trend of recent international transfers of gold, silver and merchandise indicates that the United States is gradually passing from a debtor to a creditor nation, our investments abroad constantly increasing. One particularly striking evidence of this condition is found in the new Mexican loan of \$40,000,000 that was taken by a New York syndicate.

### Suicide Hailed From Oregon.

A press dispatch from San Francisco tells of the finding of the dead body of Eugene B. Burdick, a mining man from Baker City, in a room at the Grand Hotel Monday. Empty strychnine bottles by the body pointed to suicide, although no motive has been adduced. Baker City papers say that Burdick was not known there. Sumpterites recall no operator by that name in this camp.

### Ore is Now Refractory.

A. W. Ellis is in town from the Gilkey & Kershaw mine, in the Greenhorns, to remain a couple of days. He says the stamp mill on the property is not running, as the ore has changed from free milling to refractory. Mr. Ellis, who is in charge of operations, brought a test shipment to the smelter sampling works to determine the proper mode of treatment.

### Case of Wade vs. Brock.

Dr. Brock and W. W. Wade returned this morning from Baker City. Mayor McColloch, representing Wade, the plaintiff, argued his side of the case, involving an interest in the Golden Chariot mine, last evening before Judge Eakin in chambers. Attorney Johns will argue the case for Dr. Brock as soon as the judge has time to hear him, probably tomorrow evening.